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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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HELLER EHRMAN LLP
275 MIDDLEFIELD ROAD
MENLO PARK, CA 94025-3506

EXAMINER	
TURNER, SHARON L	
ART UNIT	PAPER NUMBER
1647	

DATE MAILED: 05/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/978,187	FERRARA ET AL.	
	Examiner	Art Unit	
	Sharon L. Turner	1647	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 February 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *58-66 and 68-70* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *58-63,66,69 and 70* is/are rejected.

7)☒ Claim(s) *64,65 and 68* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Amendment

1. The amendments filed 11-29-04 and 2-10-05 have been entered into the record and have been fully considered.

2. The text of Title 35 of the U.S. Code not reiterated herein can be found in the previous office action.

3. As a result of Applicants amendment, all rejections not reiterated herein have been withdrawn.

4. Claims 58-66 and 68-70 are pending.

Priority

5. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 119(e), 120 and 365(c) as follows:

If applicant desires priority under 35 U.S.C. 119(e) or 120 based upon a previously filed application, specific reference to the earlier filed application must be made in the instant application. For benefit claims under 35 U.S.C. 120, 121 or 365(c), the reference must include the relationship (i.e., continuation, divisional, or continuation-in-part) of the applications. This should appear as the first sentence of the specification following the title, preferably as a separate paragraph unless it appears in an application data sheet. The status of nonprovisional parent application(s) (whether patented or abandoned) should also be included. If a parent application has become a patent, the expression "now Patent No. _____" should follow the filing date of the parent application. If a parent application has become abandoned, the expression "now abandoned" should follow the filing date of the parent application.

If the application is a utility or plant application filed under 35 U.S.C. 111(a) on or after November 29, 2000, the specific reference must be submitted during the pendency of the application and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior application. If the application is a utility or plant application which entered the national stage from an international application filed on or after November 29, 2000, after compliance with 35 U.S.C. 371, the specific reference must be submitted during the pendency of the application and within the later of four months from the date on which the national stage commenced under 35 U.S.C. 371(b) or (f) or sixteen months from the filing date of the prior application. See 37 CFR 1.78(a)(2)(ii) and (a)(5)(ii). This time period is not extendable and a failure to submit the reference required by 35 U.S.C. 119(e) and/or 120, where applicable, within this time period is considered a waiver of any benefit of such prior application(s) under 35 U.S.C. 119(e), 120, 121 and 365(c). A priority claim filed after the required time period may be accepted if it is accompanied by a grantable petition to accept an unintentionally delayed claim for priority under 35 U.S.C. 119(e), 120, 121 and 365(c). The petition must be accompanied by (1) the reference required by 35 U.S.C. 120 or 119(e) and 37 CFR 1.78(a)(2) or (a)(5) to the prior application (unless previously submitted), (2) a surcharge under 37 CFR 1.17(t), and (3) a statement that the entire delay between the date the claim was due under 37 CFR 1.78(a)(2) or (a)(5) and the date the claim was filed was unintentional. The Director may require additional information where there is a question whether the delay was

unintentional. The petition should be addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

An application in which the benefits of an earlier application are desired must contain a specific reference to the prior application(s) in the first sentence of the specification of in an application data sheet (37 CFR 1.78(a)(2) and (a)(5)). The specific reference to any prior nonprovisional application must include the relationship (i.e., continuation, divisional, or continuation-in-part) between the applications except when the reference is to a prior application of a CPA assigned the same application number.

This application is claiming the benefit of a prior filed nonprovisional application under 35 U.S.C. 120, 121, or 365(c). Copendency between the current application and the prior application is required.

The later-filed application must be an application for a patent for an invention which is also disclosed in the prior application (the parent or original nonprovisional application or provisional application); the disclosure of the invention in the parent application and in the later-filed application must be sufficient to comply with the requirements of the first paragraph of 35 U.S.C. 112. See *Transco Products, Inc. v. Performance Contracting, Inc.*, 38 F.3d 551, 32 USPQ2d 1077 (Fed. Cir. 1994).

Applicant's have amended the first line of the specification as directed in the preliminary amendment submitted 2-20-02. The amendment identifies multiple US serial numbers, PCT international applications and provisional applications. However, the relationship of the multiple applications remains in question as the amendment fails to specifically point out the proper lineage and relationships amongst the members.

Moreover, it is noted that not all members are co-pending and that multiple applications within the chain fail to support the content of SEQ ID NO:118 and 119, identified as PRO320. Applicant's have also submitted a supplemental communication providing a priority map which identifies particular applications in which PRO320 is disclosed. The map notes the first disclosure within US provisional 60/078,004. These sequences are found in this priority application. However, utility is granted based upon activity in EXAMPLE 109: Ability of PRO Polypeptides to Inhibit Vascular Endothelial Growth Factor (VEGF) Stimulated Proliferation of Endothelial Cell Growth (Assav 9) at p. 326 of the specification. Yet, support for activity in this assay is not found in the priority applications until the filing of PCT/US99/05028, filed 3-8-99. As priority is not found until the 3-8-99 filing date, this application has been examined with the effective filing date of 3-8-99. Priority cannot be granted where no support for the activity of the noted sequences is provided.

Should the Applicant disagree with the Examiner's factual determination above, it is incumbent upon the Applicant to provide the serial number and specific page numbers of any parent application filed prior to 3-8-99 which specifically supports the claim limitations for each and every claim limitation in all the pending claims which Applicant considers to have been in possession of and fully enabled prior to 3-8-99.

Applicant is required to clarify the priority claim in accordance with the above noted requirements including all co-pending applications and their designated relationships upon which priority is claimed. As priority lineage cannot be definitively determined the application has been examined with the effective filing date of 3-8-99.

As noted in the response of 11-29-04, Applicants essentially concur with the priority determination.

Utility

6. Utility is established based upon EXAMPLE 109: Ability of PRO Polypeptides to Inhibit Vascular Endothelial Growth Factor (VEGF) Stimulated Proliferation of Endothelial Cell Growth (Assav 9) at p. 326 of the specification.

Claim Objections

7. Claims 64, 65 and 68 are objected to because of the following informalities: Dependency upon a rejected base claim. Appropriate correction is required.

Rejections Maintained and Necessitated by Amendment

Claim Rejections - 35 USC § 112

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claims 58-63, 66 and 69-70 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification describes the peptide sequence consisting of SEQ ID NO:119, which is shown to have activity in EXAMPLE 109: Ability of PRO Polypeptides to Inhibit Vascular Endothelial Growth Factor (VEGF) Stimulated Proliferation of Endothelial Cell

Growth (Assav 9) at p. 326. However, the claims as written include polypeptides having at least 80-99% sequence identity with SEQ ID NO:119 and polypeptides including or lacking various regions including; lacking its signal peptide, encoding the extracellular domain, encoding the extracellular domain but lacking its signal peptide, but for which no particular biological activity or function is recited. Thus, the claims are directed to various genus' defined solely by homology comparison.

However, the instant disclosure of a single polypeptide, that of SEQ ID NO:119 with the instantly disclosed specific activities, does not adequately support the scope of the claimed genus, which encompasses a substantial variety of subgenera. A genus claim may be supported by a representative number of species as set forth in *Regents of the University of California v Eli Lilly & Co,* 119F3d 1559, 1569, 43 USPQ2d 1398, 1406 (Fed. Cir. 1997), which states:

"To fulfill the written description requirement, a patent specification must describe an invention and do so in sufficient detail that one skilled in the art can clearly conclude that "the inventor invented the claimed invention". Lockwood v. American Airlines, Inc., 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (1997); In re Gosteli, 872 F.2d 1008, 1012, 10 USPQ2d 1614, 1618 (Fed. Cir. 1980) ("[T]he description must clearly allow persons of ordinary skill in the art to recognize that [the inventor] invented what is claimed.") Thus, an applicant complies with the written description requirement "by describing the invention, with all its claimed limitations, not that which makes it obvious," and by using "such descriptive means as words, structures, figures, diagrams, formulas, etc., that set forth the claimed invention." Lockwood, 107 F.3d 1565, 1572, 41 USPQ2d

at 1966.

An adequate written description of a DNA, such as the cDNA of the recombinant plasmids and microorganisms of the '525 patent, "requires a precise definition, such as by structure, formula, chemical name, or physical properties," not a mere wish or plan for obtaining the claimed chemical invention. Fiers v. Revel, 984 F.2d 1164, 1171, 25 USPQ2d 1601, 1606 (Fed. Cir. 1993). Accordingly, "an adequate written description of a DNA requires more than a mere statement that it is part of the invention and reference to a potential method for isolating it; what is required is a description of the DNA itself." Id at 1170, 25 USPQ2d at 1606."

A description of a genus of cDNAs may be achieved by means of a recitation of a representative number of cDNAs, defined by nucleotide sequence, falling within the scope of the genus, or of a recitation of structural features common to the genus, which features constitute a substantial portion of the genus.

However, the instant specification discloses only the single sequence and no other members of the claimed genus. Given the unpredictability of homology comparisons, see in particular Skolnick et al., Trends in Biotech., 18(1):34-39, 2000 and the fact that the specification fails to provide objective evidence of any additional sequences with the same requisite function, it cannot be established that a representative number of species have been disclosed to support the genus claim. No activity is set forth for the additional sequences and there is no evidence for a correlation or nexus provided between possession of any homologous feature and the activities of EXAMPLE 109: Ability of PRO Polypeptides to Inhibit Vascular Endothelial

Growth Factor (VEGF) Stimulated Proliferation of Endothelial Cell Growth (Assav 9) at p. 326 such that it is clearly conveyed that possession of any polypeptide having such structural similarity would possess the same function. Thus, the claims lack adequate written description support.

Applicants argue in the response of 2-10-05 that the amendments providing that the polypeptides "inhibit endothelial cell growth" provide for biological activity with relatively high percent identity such that the artisan would recognize that Applicants were in possession of the invention.

Applicants arguments filed 2-10-05 have been fully considered but are not persuasive. The Examiner acknowledges the addition of the functional recitation. However, the arguments fail to present ovjective evidence of any additional species of any percent identity or portion thereof as encompassed by the extracellular domain that exhibits the noted function. No predictability is provided that any other related molecule exhibits such function and the art recognizes functional variability even amongst single amino acid variants. Accordingly, the single species does not evidence possession of the genus in the absence of evidence of any other members, within the full scope of the claims, including extracellular portions that are evidenced to provide for inhibiton of endothelial cell growth. Rejection therefore is maintained.

10. Claims 58-63, 66 and 69-70 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for SEQ ID NO:119 exemplified as exhibiting activity EXAMPLE 109: Ability of PRO Polypeptides to Inhibit Vascular Endothelial Growth Factor (VEGF) Stimulated Proliferation of Endothelial Cell Growth

(Assav 9) at p. 326, does not reasonably provide enablement for the variable and partial peptide sequences and for such generic sequences where no requisite functional activity is provided as claimed. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

The specifications disclosure is insufficient to enable one skilled in the art to practice the invention as broadly claimed without undue experimentation. The factors relevant to this discussion include the quantity of experimentation necessary, the lack of working examples, the unpredictability of the art, the lack of sufficient guidance in the specification and the breadth of the claims.

The skilled artisan readily recognizes that protein chemistry is an unpredictable area of biotechnology. Proteins with replacement of single amino acid residues may lead to both structural and functional changes in biological activity and immunological recognition, see in particular Skolnick et al., Trends in Biotech., 18(1):34-39, 2000. For example, Jobling et al, Mol. Microbiol., 1991, 5(7):1755-67 teaches a panel of single amino acid substitutions by oligonucleotide directed mutagenesis which produce proteins that differ in native conformation, immunological recognition, binding and toxicity, thus exemplifying the importance of conserved structural components to both biological function and immunological recognition.

Instant specification discloses a single PRO320 sequence that differs from the other sequences disclosed. The specification notes that the peptide exhibits activity in EXAMPLE 109: Ability of PRO Polypeptides to Inhibit Vascular Endothelial Growth

Factor (VEGF) Stimulated Proliferation of Endothelial Cell Growth (Assav 9) at p. 326. However, the specification fails to note such conserved activities in any 80-99% variable molecule. However, applicants claims are directed to polynucldoetides encoding peptides with 80-99% homology, to extracellular domains and to sequences lacking the signal peptide where no requisite function is required.

The specification does not enable this broad scope of the claims that encompasses a multitude of analogs or equivalents because the specification does not teach which residues can or should be modified such that the polypeptides retain sufficient structural similarity to evoke activity. The specification provides essentially no guidance as to which of the essentially infinite possible choices is likely to be successful and the skilled artisan would not necessarily expect functional conservation among homologous sequences. Moreover, no similar function is required of the additional sequences. The artisan would be unable to determine how to use such similar sequences that lack common function. The additional members would require further experimentation to discover their requisite use. Thus, applicants have not provided sufficient guidance to enable one skilled in the art to make and use the claimed derivatives in a manner reasonably correlated with the scope of the claims. The scope of the claims must bear a reasonable correlation with the scope of enablement (In re Fisher, 166 USPQ 19 24 (CCPA 1970)). Without such guidance, the changes which can be made and still maintain activity/utility is unpredictable and the experimentation left to those skilled in the art is unnecessarily, and improperly, extensive and undue. See Ex parte Forman, 230 USPQ 546 (Bd. Pat. App. & Int. 1986).

Thus, in view of the quantity of experimentation necessary, the lack of working examples, the unpredictability of the art, the lack of sufficient guidance in the specification and the breadth of the claims the artisan cannot make and use the invention without undue experimentation.

Applicants argue in the response of 2-10-05 that the amendments providing that the polypeptides "inhibit endothelial cell growth" provide for biological activity with relatively high percent identity such that the artisan would be enabled to make and use the invention of the claims without undue experimentation, noting particularly MPEP2164.01.

Applicants arguments filed 2-10-05 have been fully considered but are not persuasive. The Examiner acknowledges the addition of the functional recitation. However, the arguments fail to present objective evidence of any additional species of any percent identity or portion thereof as encompassed by the extracellular domain recitation that exhibits the noted function. No predictability is provided that any other related molecule exhibits such function and the art recognizes functional variability even amongst single amino acid variants. Accordingly, the single species does not evidence enablement such that the artisan can make and predicatably use the invention claimed within its full scope. No additional members are evidenced to possess the function of inhibiting endothelial growth, there is no discluosure of any suitable extracellular portions either via structural or functional constraints and hence undue experimentation would be required on behalf of the artisan to make use and test for the structural and functional requirements of the claims so as to arrive at those members useful for

inhibiting endothelial growth. The modifications to provide such are unpredictable to the artisan and only a single member of the genus is provided. Hence there is insufficient guidance from the specification to make and use the full scope of the claimed invention. Rejection therefore is maintained.

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 58-63, 66 and 69-70 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 58-63, 66 and 69-70 are directed to isolated peptides comprising "the extracellular domain" and "lacking its associated signal peptide". Page 122, lines 12-15 of the specification generally teaches that the PRO "extracellular domains" are a form of the PRO polypeptide "which is essentially free of the transmembrane and cytoplasmic domains." Figure 44-45 teaches that PRO320 possesses a "Signal peptide" at amino acids 1-21, EGF-like domain cysteine pattern signature at amino acids 80-91 and a calcium-binding EGF-like domain at amino acids 103-124, 230-251 and 185-206. However, these limitations cannot be read into the claims and the specification fails to teach the orientation of the molecule with respect to the intracellular and/or extracellular portions. Further, the claim is directed to the extracellular domain lacking its associated signal peptides. However, signal peptides are not generally considered to be "associated with" extracellular domains and indeed in this particular incidence they are

not adjacent as identified. Thus, the metes and bounds of the recitations are indefinite with respect to those residues that are intended to be included or excluded by the claim recitations and the artisan is not provided definitive guidance whereby the residues may be determined.

Applicants argue in the 2-10-05 response that amendment of the claims has removed recitations to the "extracellular domain" and "the extracellular domain...lacking its associated signal peptide."

Applicants arguments filed 2-10-05 have been fully considered but are not persuasive as the claims remain drawn to "extracellular domains" as particularly noted within claims 58-63 element (c) and 66. No clarification to that which is the extracellular domain is provided. Therefore rejection on these grounds is maintained.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

14. Claims 58-63, 66 and 69-70 are rejected under 35 U.S.C. 102(e) as being anticipated by Ford et al., US Patent No. 6,392,018 filed 2-12-1999 and issued May 21, 2002.

Ford et al., teach EGF Motif protein obtained from fetal liver-spleen cDNA library, see in particular title, abstract. The protein is distinguished by Ford as SEQ ID NO:19 bearing 100% similarity to instant SEQ ID NO:119 encoded by SEQ ID NO:118. The signal sequence is taught at column 1, lines 18-39, column 5, lines 49-59, Figure 5, and column 9, lines 20-26. The extracellular portion is noted for example at column 6-7, paragraph spanning, column 9, lines 46-50, and column 10, lines 16-25 denoted by "soluble" portions as described at column 11, lines 5-12, having transmembrane and intracellular portions deleted, also signal sequences deleted or mature forms are noted at column 10, lines 16-25. Also discussed are hybridizing and variable sequences (80-99%) as noted at column 12, line 50-column 13, line 49. Ford further denotes vectors, host cells and suitable methods for expression, see in particular columns 13-21, for example. Heterologous and chimeric sequences including with Fc domain are noted at column 7, lines 15-30, column 9, lines 21-26, column 10, lines 30-50 and columns 13-17. Thus, the reference teachings anticipate the claimed invention.

Applicants argue in the 2-10-05 response that the noted declaration via the inventors establishes the completion of the invention prior to the priority date of the '018 patent, Feb. 12, 1999.

Applicants arguments have been fully considered but are not persuasive to the noted claims with respect to homology and "extracellular domains" which structural scope has not been clarified. The '018 patent claims the subject matter pertaining to related EGF peptides and portions thereof. Pending clarification to the metes and bounds of the "extracellular domains" of the instant claims in context with percent

variability, the Examiner cannot conclude that the prior art claims are not drawn in part to the same invention claimed. For these reasons rejection is maintained.

Status of Claims

15. No claims are allowed.

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

17. Any inquiry of a general nature or relating to the status of this general application should be directed to the Group receptionist whose telephone number is (703) 308-0196.

Papers relating to this application may be submitted to Technology Center 1600, Group 1640 by facsimile transmission. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). Should applicant wish to FAX a response, the current FAX number for Group 1600 is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharon L. Turner, Ph.D. whose telephone number is (571) 272-0894. The examiner can normally be reached on Monday-Friday from 8:00 AM to 4:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brenda Brumback can be reached at (571) 272-0961.

Sharon L. Turner, Ph.D.
May 11, 2005

SHARON TURNER, PH.D.
PRIMARY EXAMINER
5-10-05